8.1. OVERALL POLICY GOALS

Land use policies and regulations of the last half of the 20th Century have probably done more to discourage pedestrian-friendly development than any other single force. The City of Albemarle will begin the process of updating its zoning and subdivision ordinances. The Pedestrian Plan is intended to recommend policies and regulatory provisions that should be considered by the City as part of its comprehensive ordinance update. The recommendations provided in this section are intended to create a more pedestrian-friendly environment in the City's planning area.

Emphasis on Pedestrian Travel
The provision of transit, bicycle and pedestrian facilities shall be embraced by policy as a primary element in accommodating travel demand and relieving congestion before street widening projects are undertaken. All transportation projects shall include provisions for pedestrians.

Locations of New Public Facilities
By policy, locations of new public facilities should first take into consideration pedestrian access.

- A policy statement should be made that the preferred method of transportation of children to Albemarle's schools is non-motorized (walking, bicycling, skating, etc.). For the development of new schools, finding a school location inside of a developed or future residential development is preferred. If this is not feasible, design the school so that its main entrance faces away from thoroughfares or collectors and toward future or existing residential areas. Schools must encourage children to get themselves to school without the use of cars or buses.

- The locations of post offices, health departments, Social Security offices, parks, libraries, police stations, abuse care centers, courts, DMV offices and other civic facilities should be in a location where pedestrian access is top priority. Simply placing these facilities near a sidewalk is not adequate, but placing these facilities on a sidewalk within a short walk to neighboring residents is ideal. Many of the users of these facilities are not able to or cannot afford to drive. In cases such as Social Security offices where there is typically one branch office, a central location is best. The City should have a policy to work with the county, the state, and the federal governments to make this possible.

- Plans for new roadway construction must not compromise projects and concepts brought forth in the Comprehensive Pedestrian Plan. A new roadway should never sever a planned shared-use path corridor and a road widening project must always leave room for sidewalks. A copy of NCDOT's policy that provides protection for local municipalities' greenway plans regarding new state road construction is found in **Appendix I** and can be found at:

http://www.ncdot.org/transit/bicycle/laws/laws_greenway_admin.html

8.2. GENERAL POLICY RECOMMENDATIONS

Use of Pedestrian Oriented Development Districts as a Planning Tool

The concept of the "Pedestrian Oriented Development District" is emphasized throughout this Plan. As stated earlier, these districts are not intended to designate the only places where pedestrian infrastructure projects can occur (many projects are recommended outside of these districts as well); rather, these districts are intended to identify areas in which a strong emphasis should be placed on enabling pedestrian-friendly development patterns as growth occurs.

The Pedestrian Oriented Development Districts can be applied as an "overlay" district. As a planning tool, the Pedestrian Oriented Development District should be used to guide the location of pedestrian-oriented developments (such as shopping, high-density residential and public services). These types of developments should be strongly encouraged within Pedestrian Oriented Development Districts and strongly discouraged outside of Pedestrian Oriented Development Districts. Likewise, development types that are not pedestrian-friendly by nature (such as most industrial sites, distribution centers, big-box retailers, and very low-density residential uses) should not be allowed to locate within the designated districts. A list of "compatible" uses for the Pedestrian Oriented Development Districts should be compiled. If a proposed use is not compatible with the pedestrian orientation of the district, it should not be allowed within the designated districts. Likewise, "pedestrian compatible" uses should be strongly encouraged to occur within the designated districts only. Growth confined, more-or-less, to these districts will help to curb sprawl in Albemarle. In the same sense, mixed-use zoning should be more widely incorporated in the zoning ordinance both inside and out of these Pedestrian Oriented Development Districts to discourage large parcels of single-use commercial or residential development that requires car trips from one area to another.

Zoning in Pedestrian Oriented Development Districts should enable mixed commercial/residential development. Zoning outside of Pedestrian Districts should be modified so that urban sprawl and strip mall development is not encouraged, but so that new growth is guided toward the Pedestrian District. "Sprawl" is the term used for the pattern of development that is generally dependent on the use of the automobile. The nearby Towns of Huntersville, Cornelius, and Davidson recently changed their Land Use Ordinances to reverse this trend, and have defined sprawl as possessing a number of unwanted qualities:

- Development that requires extensive areas of land further from a town center;
- Loss of farmland and other open spaces that define the character of a community;
- Zoning codes that mandate rigid separation of land uses;
- Expensive reliance on the automobile as the only viable transportation option and reducing an individuals' right to have options;
- Minimal pedestrian amenities;
- Expensive extensions of tax requirements for water, sewer and road systems to serve far-flung development;
- Houses arranged around cul-de-sacs rather than interconnected streets;
- Strip malls with extensive parking lots as opposed to traditional village centers; and
- Urban traffic volumes in non-urban settings as suburb-to-suburb commutes become more prevalent.

Zoning in Pedestrian Oriented Development Districts should enable mixed commercial/residential development. Zoning outside of pedestrian districts should be modified so that urban sprawl and strip mall development is not encouraged, but so that new growth is guided toward the pedestrian district. The City should ensure that land use zoning changes comply with pedestrian district mixed-use standards. Without a mix of residential and retail land uses, the entire concept of this pedestrian plan *will not work*. The businesses must be sure of a constant stream of pedestrian traffic from the local residents in order to make up for the lack of apparent vehicular access that might accompany a higher density shopping area with less land devoted to parking. Likewise, without proper retail within walking distance of housing, residents will not walk.

Water resource protection must always be taken into consideration when designating high density areas inside these districts. In some cases, high density development alongside a waterway is not environmentally safe, and should be discouraged or mitigated. Furthermore, new infill developments should seek to create more pedestrian-friendly environments in areas currently occupied by low-density, automobile-oriented development. An example of such development would be the reduction in size of large, mostly unoccupied strip mall parking lots to provide ground space for new businesses.

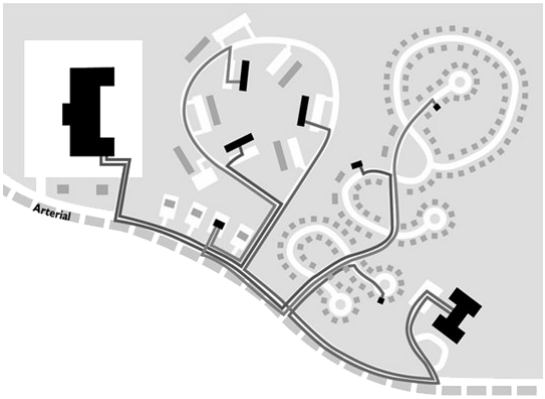
Requirements for Infrastructure Associated with New Developments

Requirements for new pedestrian infrastructure should be consistent throughout the City's planning jurisdiction, not just in the designated Pedestrian Oriented Development Districts. These requirements should be strengthened for all areas of the planning area. Suggested guidelines are as follows (these requirements should apply to all new development):

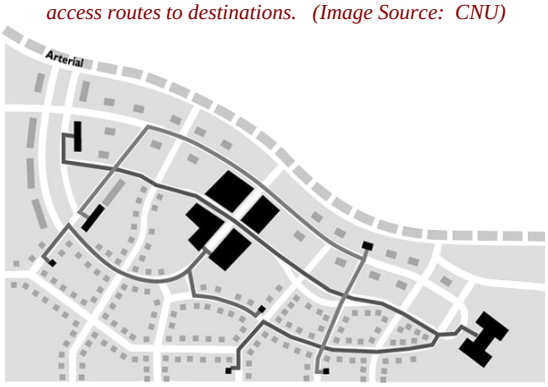
- New commercial development must be oriented to the pedestrian and include pedestrian walkways connecting the development to the external sidewalk network in the public right-of-way.

- New residential development of two dwelling units per acre or greater must have a grid-like or interconnected curvilinear street pattern with block lengths no more than 660 feet in distance. These block separations may be streets or 10-12 foot wide paths for pedestrian and bicycle users.

- Cul-de-sacs will not be permitted unless geographic or other natural barriers exist that make connections unrealistic. A developer



The development style above has a complete lack of connectivity and forces all trips onto the arterial road versus the development style below, which allows multiple access routes to destinations. (Image Source: CNU)



may create a cul-de-sac or a *close* if an acceptable bicycle and pedestrian connection is created with a 10-12 foot wide paved path that is built to standards set forth in this plan for shared-use paths.

- New developments must connect to neighboring developments. Commercial areas must create a vehicular and/or pedestrian connection to adjacent residential communities and provide a future connection option for future developments. New residential communities must connect to existing residential and commercial developments, as well as provide connection possibilities to future adjacent developments. Exemptions may apply if there is a substantial natural or geographical barrier, or if there is an environmental concern with such a connection. New developments should be required to provide pedestrian connections across natural barriers if they are listed as projects in this plan. The City may also determine that a connection across a natural barrier is necessary and worth the higher costs to developers.

- All new commercial, residential, and mixed-use developments should provide sidewalks on both sides of the street, provide buffering from auto traffic and off-street parking lots, and provide trees that will shade sidewalks. Any frontage road to the development that has no current sidewalk must also receive sidewalks. These sidewalks should also be of adequate width according to the standards set in this plan for future levels of pedestrian usage. Trees, utility poles, and street furniture shall not be placed where they may hinder the view from pedestrian crosswalks and intersections. In some cases, developments offer suitable walkway connections or traffic calming without the need to necessarily include sidewalks on both sides of the roadway within the neighborhood or along frontage roads and thoroughfares. If the City feels that suitable pedestrian linkages exist so that sidewalks along both sides of these roads are unnecessary or when residential densities are less than four dwelling units per acre this requirement may be waived in favor of facilities such as a common off-road path, retail frontage zones and walkways, or sidewalks on only one side of the roadway.

- Any new development where there is a pedestrian project mapped from the Comprehensive Pedestrian Plan must include that project to a functioning level according to guidelines. In most cases, exact alignment of the projects is not definite.

- New developments should include public green/open space with public rest rooms, public water fountains, and public seating areas. These features add vital necessities and aesthetics to Albemarle that will make the pedestrian trips enjoyable. Greenways that serve to connect key destinations may be developed as part of the open space requirement.

- When an existing sidewalk or pedestrian path is closed for construction or maintenance reasons on the walkway itself or on adjacent property, an adequate detour route should be established. Consider closing on-street parking or a lane of traffic as a temporary pedestrian route or establishing a temporary crosswalk to a walkway on the other side of the street.

- All local, state, and federal road and bridge project planning and construction projects must include reasonable non-motorized accommodation for both pedestrians and

bicycles. According to NCDOT policy, 5'-6' sidewalks shall be included on new bridges, and a determination on providing sidewalks on one or both sides of new bridges will be made during the planning process according to the NCDOT Pedestrian Policy Guidelines. NCDOT shall fund all or part of the cost of sidewalks when they are mapped and recommended as part of a transportation plan. Map 4 shows sidewalks on most state and federal roadways in Albemarle and labels them as *Complete Streets* because they completely include safe facilities for automobiles, bicyclists, *and* pedestrians. **Appendix I** includes NCDOT's Pedestrian Policy Guidelines and can be found at http://www.ncdot.org/transit/bicycle/laws/ped_guide.pdf

- All walkways must be ADA accessible. See Section 5.4 for more information.

8.3. SPECIFIC LOCAL ORDINANCE CRITIQUE AND RECOMMENDATIONS

Zoning Ordinance

There are two primary issues in the zoning ordinance that directly (and negatively) impact the pedestrian friendliness of development in Albemarle. First is the inability to mix residential uses with neighborhood-serving commercial uses except in the Central Business District (CBD). The second major issue is that the Area, Yard, and Height Requirements (Section 92.086) need to be modified to allow for more pedestrian-friendly development.

1. Mixed-Uses

Residential and non-residential uses need to be allowed to mix for convenient pedestrian access. Only the CBD zoning district allows significant mixed commercial and residential use. In this intentionally pedestrian-oriented area, developed in the pre-automobile era, residents near the town center were able to access goods and services within a short distance of their homes.

In order to promote walkability, more people need to live within walking or comfortable biking distance of shopping, employment, recreation, and/or civic destinations. The normal order of density progression is to concentrate people and activities closer together at the core and in mixed-use nodes to provide efficient service and encourage healthy, vibrant, pedestrian environments. The most efficient way for the City to provide for residents – including but not limited to youth under the driving age, those of limited means, and the elderly and those of limited physical capacities (people in all of the categories above typically make up 30% or more of a local population) – to access goods and services is to allow for housing, especially multi-family (apartments and condos) housing and townhouses, to be developed in conjunction with or adjacent to businesses that provide for residents' needs: grocery stores and other convenience services.

The two specifically neighborhood-serving business districts in the Zoning Ordinance, Neighborhood Business District (NBD) and Neighborhood Shopping District (NSD) do not allow the development of residential uses in their boundaries. NBD provides for residential development as a conditional use, subject to the approval of City Council. The NSD does not allow for residential uses at all. This plan recommends that these districts allow residential uses to mix with other uses.

2. Pedestrian-Friendly Development Standards

Use Density-based Requirements versus Lot Size:
Albemarle's residential zoning districts are all based on minimum lot dimensions that limit the ability to cluster lots and ensure, if not require, that most lots in new development will be of an identical nature. For example, in the R-10 District all single family lots must be at least 10,000 square feet in area (approximately 4.4 dwelling units per acre) and at least 75 feet in width.

There are two problems with this practice. First, it limits creativity in neighborhood design and creates "cookie cutter" subdivisions based on the minimum lot size. Second, it limits the preservation of open space by encouraging developers to plat every possible portion of a site.

A more flexible tool is the application of base density requirements for new development. These can aid in neighborhood design by allowing (but not necessarily requiring) a variety of lot sizes within close proximity while regulating the actual number of units that impact surrounding infrastructure. Such a requirement also helps to protect natural features and open space by allowing flexibility in developing sites that are not flat. Detached single family homes can actually be developed to a density of 12-16 units per acre before a fire-rated wall, such as those used in town homes, is required. To that end, we recommend the use of maximum density for zoning districts instead of minimum lot sizes.

Reduce Setback Requirements:
The residential districts mandate building setbacks based exclusively on the zoning district. First of all, this is an inappropriate relationship. Building setbacks, especially front setbacks, are more appropriately related to the type of street, the use of the building, and the surrounding development context than the size of the lot. For example, buildings on large, busy thoroughfares should rightfully be set back. However, buildings on pedestrian friendly streets, especially neighborhood streets can easily and appropriately be built close to the street to promote pedestrian appeal and safety.

More importantly, this limited approach to setbacks, in general, provides little room for the preservation of natural features within the prescribed building envelope, eliminates the opportunity for staggered facades, and organizes the garage on the site in close proximity to the front facade. In truth, the front yard is the least used portion of a typical single family house lot. Deep setbacks also tend to be less attractive for pedestrians since they remove the feeling of enclosure and proximity to human activity that people desire for interest and feeling of security.

The current setback requirements, while necessary to protect the house from noise and vibration if located on thoroughfares, is not appropriate within most neighborhoods. By permitting a reduction in front and rear setbacks to 10 or 15 feet, house lots can increase the private, usable space of the rear yard as well as the building envelope. Such a change also increases the pedestrian-friendliness of the street by bringing front doors closer to the sidewalk, where people walking by can interact with people in the semi-public spaces of front porches and front yards.

Currently, most of Albemarle's residential zoning districts have building setbacks of 35 to 40 feet from the property line, which yields an effective setback of 50 to 65 feet from the road when the width of the right-of-way between the property line and the street is included. This may be an appropriate width on busy thoroughfares, but a setback of 10-20 feet (10 feet is allowed in the R-4 zoning district) is much more pedestrian-friendly.

The setback requirements in the CBD (no building setbacks required, meaning that buildings can be built up to the right-of-way line) allow for the continuation of pedestrian friendly development that was the early pattern of the downtown's development. However, nowhere else in the City could such development be replicated under the current development standards. The Zoning Ordinance includes extensive language on the preservation of historic buildings in historic districts within the City. Unfortunately, the replication of the very pedestrian-oriented urban design standards of the City's historic neighborhoods would hardly be allowed in new development in the City.

Automobile Parking

In his book *The High Cost of Free Parking*, renowned Economist Donald Shoup shows that minimum parking requirements are the source of many urban ills, including impeding the use of active modes of transport – walking and biking. He compares the requirement for and provision of "free" parking at almost every location in America to a rental apartment where the utilities are required to be included in the rent thus giving the tenants no incentive to curtail their use of electricity or water. In fact, the tenants have an incentive to use as much of these commodities as possible since they will incur no additional cost to do so. The same is true for motor vehicle parking. Since almost everywhere that we take our car will have a free place for us to keep it at our destination, we have little incentive to consider other options for getting there:

> *And with ubiquitous free parking, we have a cheap, convenient, direct,* sedentary *connection to almost every point in the city. . . . parking requirements reduce pedestrian access [since pedestrians typically have to find their way through fields of parked cars]. No wonder we rarely walk anywhere.* (Shoup, p. 62)

Unlike many jurisdictions across the country, Albemarle appears to have no established minimum parking standards. Shoup recommends that municipalities let developers decide how many parking spaces they require and this is what Albemarle has done. However, to further reduce the impact of automobile parking on the pedestrian environment, the City should consider including the following measures in its development regulations:

Establish Parking Maximums

Consider parking maximum thresholds. This will limit the overbuilding of parking lots. Parking maximums can encourage additional development since more land can be used for building instead of parking and existing buildings with little existing parking can be reused.

Encourage Shared Parking

Shared parking for uses that have different operating hours (such as night clubs and offices) makes efficient use of space, reduces the size of parking lots, and increases the amount of land on a parcel that may be devoted to buildings versus parking. In certain

districts, such as the CBD, Shoup suggests offering developers an in-lieu fee option to contribute to public parking instead of building their own parking on-site.

Encourage On-Street Parking

On-street parking should be encouraged to be included with any off-street parking. On-street parking is one of the most efficient ways to provide and share parking. It also benefits the pedestrian environment by buffering pedestrians from motor vehicle traffic and slowing the speed of cars on the roadway.

Require Bicycle Parking

Just as the provision of motor vehicle parking has been shown to induce driving, the provision of safe and convenient parking for bicycles can have the same effect on bicycling, and therefore offer the pedestrian a convenient alternate form of transportation. Bicycle parking can be provided at a fraction of the cost of automobile parking and in a fraction of the space – 10 to 12 bicycles can be parked in the area of one car parking space at a cost of tens of dollars per bicycle space versus hundreds or thousands of dollars per motor vehicle space. The City should consider requiring bicycle parking for multifamily and all non-residential development. Different standards of bicycle parking are needed for short term visitors and customers and for longer term users like employees, residents and students. Typically, 1 bicycle space per 20 motor vehicle spaces is sufficient to provide for visitor parking demand.

Subdivision Regulations

There are a number of development standards in the City's current Subdivision regulations that should be modified to allow for more pedestrian-oriented buildings and neighborhoods:

1. Section 91.09(A) should be revised to reduce the minimum pavement width requirements.

The current required pavement widths for local streets, marginal access streets, and cul-de-sacs (26 to 32 feet, back-of-curb to back-of-curb), are too wide for low-speed, pedestrian-oriented neighborhood streets. These dimensions are excessive for most low-density, residential neighborhoods. Not only is it more expensive to build (a cost that is passed on to the home buyers), but the additional width encourages speeding, which makes the environment less appealing and safe for pedestrians and cyclists.

The minimum widths should be reduced and a greater range of street widths based on density and projected on-street parking demand should be allowed. For single family neighborhoods, the minimum roadway width may be decreased up to a minimum 18 feet in pavement width (or 20 to 22 feet face-of-curb to face-of-curb) with no perceptible impact on service delivery. This dimension permits occasional on-street parking. Where on-street parking is expected with higher frequency, a minimum width of 22-24 feet of pavement width is recommended.

Collector street widths can be reduced as well and should be based on projected traffic and development context to create more pedestrian-oriented streets. A 32 to 34-foot (face-of-curb to face-of-curb) street will accommodate full-time on-street parking on both sides of the street and two travel lanes. However, "where houses do not front on the residential collector street and [/or] parking is not normally needed, two moving lanes of pavement are adequate" (National

Association of Home Builders, 2001). Thus, based on design speed, and expected volume, collector streets could be as narrow as 20 to 22 feet.

Other factors to consider in defining minimum widths for collector streets is the need for on-street bicycle accommodations such as bike lanes (minimum 4 feet of pavement in each direction) or wider shared travel lanes (typically 13-14 feet). All of these factors – the need for on-street parking, design speed, projected motor vehicle volumes, and the need for bicycle accommodations – should be considered in defining the widths for collector streets.

2. Section 91.09(A)(8) should be revised to modify cul-de-sac requirements.

Cul-de-sacs create a very safe environment within their confines, but create inhospitable pedestrian environments because they result in fewer route choices and thus longer distances from destinations. The current maximum length for cul-de-sacs, 400 feet, is good – better than many communities' requirements in the region. However, it could be reduced to as little as 250 feet.

Furthermore, the City should specify conditions for when cul-de-sacs are allowed. They should be allowed to be used only as a condition of last resort when street connections are not possible due to topographic, environmental, or lack of street stubs on adjacent properties. When cul-de-sacs are used, they should be required to provide pedestrian connections through the end of the cul-de-sac to other near by streets or destinations.

3. Section 91.08(C) should be revised to reduce block lengths.

The current maximum allowed block length of 1500 feet is too long for pedestrian-oriented blocks. Ideally sized pedestrian-oriented blocks are 200-400 feet wide. The block length should be based on a variety of factors, including the density of the development and the zoning district and the development context of the development (urban versus rural) up to a maximum of 800 to 1,000 feet.

The Subdivision Regulations include a good statement regarding the provision of a "pedestrian crosswalk," but this is only required "where deemed necessary by the Planning Board." More objective requirements regarding when such crosswalks are required and how they should be constructed (in this section and in Section 91.08(F), "Easements") should be provided in the ordinance. Consider requiring blocks longer than 800 feet to provide a pedestrian crosswalk through the block. Consider requiring 15-20 feet easements and pedestrian paths to be at least 10 feet wide and of pavement or a crushed gravel surface.

4. Section 91.08(D) should be revised to reduce minimum lot widths or to use density-based standards.

As noted above, this report recommends the use of density versus lot size in all residential developments. This approach is already allowed for in the Cluster Residential Development regulations (Section 91.21). The current minimum lot width of 70 feet makes for relatively wide lots. Smaller, more compact lots put more residents within walking distance of destinations such as parks, schools, and commerce. If lot size is to be used, consider allowing single-family lots as narrow as 35 to 45 feet on streets that are served by public water and sewer.

5. Section 91.08(E) should be revised to reduce building setback lines.

The minimum building setback of 35 feet from the front property line yields an effective setback of nearly 50 feet from the street when the right-of-way width is included. As noted above, this dimension may be appropriate on higher speed, higher volume collector and arterial streets, but is not appropriate for pedestrian-oriented neighborhood streets and commercial streets. Consider reducing front setbacks to as little as 10-15 feet on local and collector streets.

6. Section 91.08(I) should be amended for better access.

- Establish Connectivity Requirements. Improving connectivity and limiting cul-de-sacs result in improved mobility for pedestrians, motorists, and cyclists; decreased response time for emergency services and delivery costs for services such as garbage collection through improved routing options; and, improved water pressure and maintenance from the ability to loop lines through a development rather than have to rely on less efficient dead-end pipe runs. Traffic studies have shown that highly connected street networks provide much greater traffic capacity and mobility for a community, at less cost. A high degree of connectivity should occur not only at the level of thoroughfares, but also on collector or local roads. Such connectivity vastly improves a street network's performance. The street pattern should not force short trips of one or two miles onto arterials; it should be possible to make trips of this sort by using collector or other local streets, which are also more favorable to pedestrians and cyclists. With a highly-connected street network, cross-town trips should be possible using fairly direct residential roads.

- Enhance Sidewalk and Planting Strip Requirements: The existing standards provide excellent width for sidewalk and planting strips (5 and 7 feet respectively); however, context-based requirements are needed for when sidewalks should be provided on one or both sides of a street. For example, sidewalks can be required on one or both sides based on street type (arterial, collectors, and sub-collectors should have sidewalks on both sides) or density (the FHWA suggests that developments of over 4 dwelling units per acre should have sidewalks on both sides, while developments of lesser density can be served with a sidewalk on one side).

  Sidewalks for non-residential developments and mixed-use development should be at least 6 feet in width and preferably 12-15' feet in width where there is ground floor retail, and on-street parking. (The current requirement is only 5 feet.)

  The planting strip requirement is very pedestrian-friendly since it provides a buffer between the pedestrian zone and the vehicle zone of the street, and provides the width necessary for adequate ADA ramp slopes from the street to the sidewalk. An 8 foot-wide planting strip, however, would better provide space for most street tree varieties to be planted, which provide shade for pedestrians and additional buffer from moving vehicles. The City should consider requiring that shade trees be planted in these planting strips in all new developments since street trees not only benefit pedestrians, but can help reduce stormwater runoff, increase the life of pavement, and increase property values, among many other benefits. Unfortunately, Albemarle requires street

trees to be planted on private property rather than in the planting strip in the right-of-way. This plan recommends that street trees be required to be planted in the planting strip.

7. Section 91.11 should be revised to enhance "Improvements with the City Limits" requirements.

The City should establish objective standards for when sidewalks should be required. Objectives such as the context-based standards suggested above should be provided.

Speed Limit on Residential Streets

The speed limit should be reduced to 20 mph on all residential and mixed-use commercial streets. Previous sections to this plan show that five times the number of people die when hit by a car going 30 miles per hour versus a car going 20 miles per hour. Speed limits in school zones during arrival and dismissal times should be no more than 15 mph. If possible, avoid placing pedestrian entrances to schools along North Carolina state roads as a 15 mph speed limit may not be permitted.

Streets are designed for a specific speed, and simply changing the speed limit does not alter driving habits unless there is significant enforcement. As new streets are rebuilt, or existing streets are improved, the opportunity exists to create an environment where the driver would rather drive at a speed that is safer near pedestrian activity areas. Consider creating a policy that includes incorporating low speed design into residential and high density commercial street design. As Albemarle develops the proposed Pedestrian Oriented Development Districts, streets should change to accommodate the pedestrian. Narrow lane widths, curvy alignments, alternating on-street parking, landscaping, short building setbacks, bicycle lanes, sidewalks, and other added features could eventually naturally decrease the comfortable driving speed. Lower posted speed limits on roads with higher design speeds, some traffic calming measures, and increased law enforcement would be necessary to deter speeding, particularly where pedestrians must share the roadway with cars. Residential streets with no sidewalks will become much safer and thus much more attractive to the pedestrian if the speed limit were to be reduced to 20 miles per hour.

Garbage Truck Ordinance

A University of Florida study in 2000 found that the amount of litter substantially increased after automated garbage and recycling trucks made their rounds on garbage pickup day. On some weeks, the amount of loose paper, packaging, bags, cups and other litter more than doubled after the trucks came through, the study found. The major conclusions found that the blame can be placed on citizens for not bagging loose and especially light material, automated trucks that frequently spill container contents, and uncovered load compartments on trucks. Any truck that transports trash through Albemarle should be required by ordinance to keep all access bays fully shut and all rooftops covered when it does not interfere with actively collecting garbage. All non-recyclable trash placed in outside bins should be bagged to accommodate for newer automated trash collection trucks.

Acquisition of Easements for Pedestrian Projects

As the City seeks to create sidewalk connections in areas that are already developed, the availability of right-of-way inevitably will be an obstacle. The City should take steps to formalize a policy regarding the construction of sidewalks or other pedestrian projects outside of the public right-of-way. Ideally, the City should identify opportunities to reach agreements with property owners to provide a sidewalk or shared-use path easement as necessary for new projects without acquiring property. Easements for public access should be a standard addition for any new or re-contracted utility easements. For example, standard 10 foot wide utility rights of way should be modified to a 30 foot utility and public access shared right of way. In addition, an effort should be made to ensure that conservation easements purchased by developers should not restrict environmentally mindful construction of a shared-use path or public access for such a path.

There are several means by which pedestrian facilities can acquire the financial and land resources needed to be completed. These include *Reservations*, *Dedications*, *Payment-in-Lieu*, *Impact Fees*, and the *Transfer of Development Rights*. These methods are defined below. It is important to note that if Federal Highway funds are sought or used, the land owner must be offered fair market value for any land acquired.

Reservation:
Residential developments impacting a public facility (school, park, shared-use path) are required to set aside land for a certain period of time so public agencies can purchase a specified area.

Dedication:
These are usually found in zoning or subdivision ordinances, whereby a piece of land from a development is given fee-simple to the public for a particular use, such as a park or shared-use path. Dedication requirements are almost always attached to residential development, but can be extended to commercial development as well. Local governments can require a dedication based on the need to provide more public recreation facilities due to the needs of the new residents coming with the development. If a planned residential or commercial development is located on a planned pedestrian project, an easement must be dedicated for the future shared-use path. The regulation should also clearly state the standards for size, topography, and accessibility. This information helps with consistency and legality of the dedication process. If the new development is not on a planned route, the developer shall make a payment-in-lieu of a dedication.

Payment-in-Lieu:
These payments are tied to dedication regulations. The developer pays a fee that represents the value of the site or the improvement that would have been dedicated or provided. Donations are required when affected by a planned park or shared-use path route, but those developments not affected still bear similar expenses. Payment-in-lieu fees are typically earmarked by its purpose, geographic area, and have a specific time limit. These fees can be used to pay the development costs of nearby pedestrian shared-use paths.

Impact Fees:
This is a one time fee imposed on new development. The intent of an impact fee is to shift the cost of providing public facilities (roads, sewers, parks, etc.) needed to serve new growth from the general tax base to the new development generating the demand for the new facilities. Tied to numbers of people (dwelling units, bedrooms) rather than land use, impact fees require state-granted enabling legislation to enact.

Transfer of Development Rights:
This is an arrangement that allows landowners to sell/transfer potential density of development of their property (sending area) to another location better suited to accommodate additional development (receiving area). Sending areas are typically those areas preferred to be protected and conserved such as open space, forests, watersheds, wetlands, and historic landmarks. Receiving areas are places that have capacity to accommodate new development, such as pedestrian and transit oriented development, infill, etc.

Incentives:
There are a range of incentives that can be used to acquire and protect open spaces, like Density Bonuses, tax incentives, Conservation Subdivision Ordinances, Cluster Development, etc.

An example ordinance that uses some of these tactics is found in **Appendix J**, and there is an example of an easement agreement document in **Appendix K**.

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